Evaluation of Online Learning Quality during The Covid-19 Pandemic at Culinary Department

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**Abstract.** The Covid-19 pandemic that has lasted from March 2020 to the present (August 2021) has had an impact on the learning process. Learning activities that are mostly done face-to-face have turned into distance learning or online learning. For lecturers who are accustomed to using distance learning they do not experience many obstacles, but in the Covid-19 emergency, many lecturers and students experienced obstacles during the learning process. The main purpose of this article is to evaluate the quality of online learning using Be-Smart as the official LMS. This research was conducted at the Culinary Department, Faculty of Engineering, Universitas Negeri Yogyakarta. Sources of research data that assess the quality of online learning are S1 (bachelor) and D4 (applied bachelor) Culinary Department students. The research data was collected using an online learning quality control questionnaire developed from PPIDT. The data were analyzed descriptively quantitatively using the mean value and frequency distribution. The value of the quality of online learning uses a scale of 1-5 which shows a range of values ranging from very poor to very good. The results of the evaluation of the quality of online learning during the COVID-19 pandemic, it can be concluded that all indicators are in the very good category. Indicators of the quality of content, media, planning, processes, and also the evaluation of online learning are in the very good category. Even so, there are still some suggestions that aim to further improve the quality of learning.

**Keywords:** Evaluation. LMS, Online Learning

# Introduction

The Covid-19 pandemic that has lasted from March 2020 to the present (August 2021) has had an impact on the learning process. Learning activities that are mostly done face-to-face have turned into distance learning or online learning. For lecturers who are accustomed to using distance learning (e-learning, blended, flipped) they do not experience many obstacles, but in the Covid-19 emergency, many lecturers and students experienced obstacles during the learning process. Lecturers need to be creative and innovative in developing online learning content that is relevant to student competencies and 21st century learning technology.

The Department of Culinary at Yogyakarta State University organizes online learning processes through various platforms such as Be-Smart, Google Classroom, Zoom, Google Meet, and YouTube. The Be-Smart platform is an online learning platform that is prioritized because the Institute can more easily control the implementation of learning with the permission of the lecturer in charge of the course. Since the Covid-19 pandemic, the number of courses in the Culinary Department that use the Be-Smart platform has increased, but there are still some lecturers who have not used the facilities of this platform to the fullest. This condition requires an evaluation to find out the extent of the quality of online learning during the Covid-19 pandemic in the Culinary Department, Universitas Negeri Yogyakarta.

The Be-Smart platform officially uses Moodle which is a Software Learning Management System (LMS). According to Gede 1, Moodle has advantages because: (1) simple, efficient, lightweight and compatible with many browsers; (2) available upload and delete tools for various kinds of materials, modules, videos, assignments, quizzes and surveys; (3) free and open-source software in Indonesia. The results of the evaluation of the comfort level of using Moodle concluded that 85% gave a scale above 3 (happy) for each given indicator.

Online learning requires students to be able to learn independently. According to 2 there are several factors that can motivate students to study independently, namely Attitude, Quality of Courses, Quality of Information, Quality of Systems, Quality of Service, and Self-Regulated Learning.

Online learning needs to be controlled in order to maximize the achievement of learning outcomes in accordance with the targeted competency level. The Directorate of Learning determines the evaluation of the quality of learning from four components, namely evaluation of quality, process, media and evaluation of content 3. Content quality evaluation aims to assess the quality of learning materials from content elements, material structure, reference sources, and module readability. Process evaluation aims to assess communication between lecturers and students in learning, clear learning instructions, interaction rooms, and conference facilities. Evaluation of media quality aims to assess the attractiveness of the media from the elements of appearance, interface design, and ease of access. Evaluation of quality in learning aims to ensure learning progress, provide feedback, and the quality of measurement tools.

Evaluation of online learning is carried out to reveal student satisfaction with the quality of materials, media, and learning processes which include planning, implementation, and evaluation. The results of this evaluation are useful for providing feedback to lecturers in order to develop interesting online learning due to student expectations. Students who are satisfied with online learning are expected to be more motivated to learn independently because the success of online learning lies in learning independence. Students who have high self-regulated learning are more independent in managing their learning and are more likely to succeed in online learning 2.

Previous research has shown that online learning is very helpful in education, but 55.6% of respondents felt it was less effective during the Covid-19 pandemic. Complaints submitted by students include too many assignments, burdensome costs and almost all students feel anxious. Students expect face-to-face learning to establish an emotional connection between students and lecturers in online learning 4. Online learning is effective if students can interact with content, friends and lecturers. The availability of social interaction can eliminate feelings of isolation in online learning. Online platforms can never replace physical presence and spontaneous interaction in the classroom. Students' desire for face-to-face lectures persists 5. In addition, students who received individual interventions showed higher levels of learning motivation, learning attitudes and self-efficacy than students who were given classical interventions 6. Learning using blended learning and flipped learning (experiment) has a positive effect on achievement, academic engagement, and the student satisfaction 7. Various studies have shown that online learning during the Covid-19 pandemic is very beneficial. Online learning will be effective if there is support for social interaction between users of the online learning platform. In addition, students also feel burdened by the many tasks, connectivity, and costs to support online learning. Unfortunately, they have not provided a more detailed explanation regarding the quality of online learning used.

The main purpose of this article is to evaluate the quality of online learning using Be-Smart as the official LMS of Universitas Negeri Yogyakarta, especially in the Department of Culinary which includes the quality of learning materials, learning media, planning of learning, implementation of learning and evaluation of learning for the success of online learning.

# method

This research is evaluation research that is based on the philosophy of pragmatism and is oriented towards results and impacts. The results of this evaluation study were directly used to make some practical decisions on online learning based on a quantitative approach. The research was conducted at the Culinary Department, Faculty of Engineering, Universitas Negeri Yogyakarta. This research was carried out for 6 months, starting from February to July 2021. The subjects of this research were all courses held in 2020. The subjects evaluated were limited to theoretical courses because the elements of material, media and the learning process had the same characteristics. Sources of research data that assess the quality of online learning are S1 (bachelor) and D4 (applied bachelor) Culinary Department students.

The research data was collected using an online learning quality control questionnaire developed from PPIDT (Directorate of Higher Education Learning). Questionnaire in Google Form for Culinary Department students who were selected as research samples. Data collection activities were assisted by class leaders and students who were members of the research. The data were analyzed descriptively quantitatively using the mean value and frequency distribution. The value of the quality of online learning uses a scale of 1-5 which shows a range of values ranging from very poor to very good. The quality value data is then divided into 4 categories using the standard deviation formula, namely: less, sufficient, good and very good as shown in Table 1.

**TABLE 1.** *Quality Category of Online Learning*

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| **Category** | **Range Scale** |
| Less | 1,00-1,25 |
| Sufficient | 1,26-2,50 |
| Good | 2,51-3,75 |
| Very good | 3,76-5,00 |

# Result and discussion

The results of the evaluation of online learning quality on the 5 learning components: material, media, planning, implementation, and evaluation are reported in the form of average values which are grouped into 4 quality categories as shown in Table 1. The first online learning component is the quality of the material as shown in Table 2 indicating that the course content quality of the S1 lecturers is lower than that of the D4. Almost all assessment points in the D4 courses scored less than 4 even though these scores were still in the very good category. Two points that only get good marks are the provision of entertaining interludes to relieve boredom while studying. This is important during a pandemic because physical distancing policies can lead to feelings of isolation and boredom.

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| **TABLE 2.** *Evaluation Result of Quality Content* |
| Indicator | S1 Courses | D4 Courses |
| Precise, consistent, and thorough concept | 3,90 | 4,49 |
| Simple and easy to understand language | 3,83 | 4,35 |
| Support achievement of real outcomes | 4,06 | 4,39 |
| Content with references | 4,15 | 4,30 |
| Interesting content to learn | 3,66 | 4,30 |
| Provide several choices of activities and learning media | 3,96 | 4,19 |
| Available entertaining interludes | 3,58 | 3,78 |
| Text, images, graphics in power point are very clear and easy to read | 3,93 | 4,41 |
| Background and content regulated beautiful and harmonious | 3,90 | 4,44 |
| Easy to find, fast and accurate navigation | 3,98 | 4,25 |
| Not too much learning load | 3,85 | 4,18 |
| Average evaluation of learning content quality | 3,89 | 4,28 |

The quality of online learning content is in the Very Good category with an average value of 3.89 (S1) and 4.28 (D4). Students expect online learning content to be interesting and there will be entertainment breaks so it doesn't get boring. According to the Directorate of Higher Education Learning, good learning content is free from errors and presented without bias. Statements of claims or conclusions must be accompanied by data as evidence or logical arguments. Learning content is in accordance with the needs and characteristics of learning outcomes 3. Endang Mulyatiningsih 8 found that full online learning content actually causes low student participation rates because the learning burden is felt too heavy. Learning content that only contains simple modules, videos and assignments can actually cause student participation in learning to approach 100%.

Another research found that in online learning, the learning goals and expectations of each course are clearly conveyed to students, the provision of high-quality learning materials, and efforts to improve collaborative learning can contribute significantly to student achievement 9. Low quality e-learning content can lead to an increase in knowledge but no change in attitudes and skills in the workplace after learning 10. Based on this study, the components of online learning content have very good quality. Lecturers have the ability to compose content according to student expectations and learning outcomes.

The second component is learning media. Learning media serves to help students understand the material better. Media that are often used by lecturers are PowerPoint and video. The average value of the learning media used by the lecturer is in the Table 3. Student assessments on the quality of learning media are still consistent with previous content quality assessments. Students considered that the learning media was less interesting and the media did not contain new knowledge that aroused the desire to learn. These two things got the lowest score among the other items. Based on the data from Table 3, the lowest learning media quality indicators are shown in the attractiveness of the media (interesting media) and the ability of the media to increase learning enthusiasm (contains new knowledge that increases enthusiasm for learning).

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| **TABLE 3.** *Evaluation Result of Media Quality* |
| Indicator | S1 Courses | D4 Courses |
| Able to clarify the delivery of material | 4,00 | 4,34 |
| Uses relatively new technology | 4,19 | 4,25 |
| Interesting media  | 3,64 | 4,08 |
| Contains new knowledge that increases enthusiasm for learning | 3,69 | 4,18 |
| Can be selected according to interest, skip, pause, and repeat | 3,98 | 4,14 |
| Relevant to the material presented | 4,15 | 4,33 |
| Available in several options: video/ppt/module | 4,19 | 4,15 |
| Easy to access and operate | 4,29 | 4,30 |
| The use of fonts, size, and colors seem beautiful and immaculate | 3,96 | 4,26 |
| Average evaluation of learning media quality | 4,01 | 4,22 |

According to Rusman 11 students' understanding of the material can be helped by interesting learning media. The results of other studies show that the performance of students who learn through short duration videos achieve better results on cognitive achievement and retention of learning effects in the long term 12. Attractive media is expected to extend the concentration of learning so as to foster great effort and will. The duration of concentration varies from individual to individual and the average concentration of students is about twenty minutes without a break. Concentration cannot last long because it causes mental and physical fatigue so it needs to be trained. A happy student, good physical condition, suitable learning environment, high learning motivation can ensure high performance and concentration on learning longer. Students who are sad, demotivated, tired and surrounded by noise will require a lot of effort and energy 13. The indicators of learning media made by S1 lecturers are good but need to be improved to be more attractive so that students can receive maximum learning.

The third component is online learning planning. The data presented in table 4 shows the average value of each learning planning indicator is very good, so there is nothing that needs to be revised again. For lecturers who teach first-year courses, there may still be some who need to add external learning resources to make them more varied.

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| **TABLE 4.** *Evaluation Result of Planning Quality* |
| Indicator | S1 Courses | D4 Courses |
| The lesson plan is presented at the beginning | 4,45 | 4,51 |
| Instructions are delivered clearly and completely | 4,30 | 4,38 |
| The composition of the material is relevant to the learning outcomes  | 4,24 | 4,36 |
| Learning stages are arranged systematically  | 4,05 | 4,39 |
| Varied learning, material enrichment is available from external learning sources | 3,99 | 4,20 |
| Learning rules are available in the study contract | 4,06 | 4,26 |
| References relevant to the latest scientific developments | 4,01 | 4,23 |
| Average evaluation of planning quality | 4,16 | 4,33 |

The fourth component is the process of learning. The data in Table 5 shows that there are things that need to be improved, including: a more enjoyable way of delivering learning materials. Derya explained that blogs have the potential to transform teaching and learning activities into a learning community. The results of this study indicate that students who feel part of the learning community, have positive experiences in feedback via blogs, or participate in teaching and learning activities will have a better learning experience 14. Based on this, lecturers can present an online learning atmosphere to be like a community. Students will feel that online learning becomes more comfortable in the community because they can interact with other people such as lecturers or other students. On the other hand, online learning requires students to learn independently, so if they find several learning problems, the lecturer also needs to pay attention and provide solutions.

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| **TABLE 5.** *Evaluation Result of Process Quality* |
| Indicator | S1 Courses | D4 Courses |
| Easy to follow instructions on the material  | 4,01 | 4,38 |
| How to deliver enjoyable learning | 3,65 | 4,26 |
| Provide interaction opportunities | 4,23 | 4,29 |
| Available opportunities for self-repeated learning | 4,34 | 4,29 |
| Available feedback on assignments and practice is  | 4,01 | 4,24 |
| Command to read the material before learning activities | 3,90 | 4,08 |
| Students have the opportunity to find knowledge/solve problems in their own way | 4,19 | 4,26 |
| Lecturers provide study assistance to students who have learning problems | 3,81 | 4,23 |
| Provide a discussion forum  | 4,10 | 4,31 |
| Material delivered synchronously and asynchronously | 4,19 | 4,20 |
| Average evaluation of learning progress quality  | 4,04 | 4,25 |

Although most of the evaluation indicators for the lecturer's learning process are very good, it turns out that Gamage's research results 15 show that online learning still faces many challenges such as very low completion rates, students complain of being isolated, low motivation to learn so they are lazy. to work on assignments or lecture materials that are of low quality. The nature of self-awareness which is high shows the responsibility of student learning. Duval stated that the attribution of success and failure is moderated by self-awareness and the ability to improve it, when self-focus is high, success is associated with internal factors because of his ability while failure is accepted as a result of his inability. After experiencing failure, people who experience high self-focus are willing to improve their abilities. When self-focus is low, failure is always associated with external factors that do not take sides with him or blame others for the cause of his failure 16. Based on this explanation, S1 lecturers can further improve interaction and feedback to students and provide guidance to students who have difficulty following the online learning process.

The last component of online learning is evaluation. The evaluation of learning outcomes. to determine the achievement of learning objectives. The quality of online learning evaluations that have been carried out by lecturers is listed in Table 6. The data shows the evaluation scores that need attention from lecturers due to less than 4. The evaluation process must be transparent and accountable so that lecturers should: (1) give tasks that are challenging, but realistic and easy to do; (2) respond and provide technical assistance of complaints about problems using the LMS (Be-smart); (3) providing online and face-to-face counseling services; (4) student learning progress information is easily accessible to students.

Endang Mulyatiningsih 8 collected several good online learning evaluation results, including: (1) the objective test items should be randomized (shuffle), (2) individual assignments should be in the form of projects that require students to think creatively, give assignments with correct answers. equally bad because it triggers students to cheat on their friends' work, (3) the evaluation of learning should be combined with a randomized, good quality objective test so that it can measure students' actual abilities.

Online learning is recommended to have several support services that support students' successful learning, namely: (1) academic information services, academic administration, and ICT technical assistance can be obtained anywhere, anytime; (2) students have distance learning and independent learning skills (study & technical skills); (3) available online and face-to-face counseling services; (4) have access to various learning resources in various forms of libraries; (5) students can obtain information about the progress and success of their studies; (6) distance learning provides assistance for students with special abilities (diffable); (7) there is a place for student complaints 3.

Based on the explanation above, S1 lecturers need to provide variations in the form of tests for students, pay more attention to students who need assistance, can provide face-to-face assistance services, and provide more accessible information to students.

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| **TABLE 6.** *Evaluation Result of Evaluation Quality* |
| Indicator | S1 Courses | D4 Courses |
| Project assignments based on higher order thinking | 4,16 | 4,06 |
| Available deadline of collection task | 4,23 | 4,53 |
| Tasks that are challenging, but realistic and easy to do | 3,91 | 4,15 |
| Available tools to provide response and technical assistance | 3,93 | 4,20 |
| Available online and face-to-face counseling services  | 3,76 | 3,88 |
| Accessible information on student learning progress | 3,85 | 4,06 |
| Opportunity for students to give each other feedback | 4,10 | 4,14 |
| The learning process goes according to plan | 4,11 | 4,33 |
| Exams/tasks in accordance with learning objectives and outcomes competencies | 4,16 | 4,45 |
| Average evaluation of learning evaluation quality | 4,02 | 4,20 |

Overall, the results of the study show that the quality of online learning taught by S1 lecturers is lower than that of D4 lecturers as shown in Figure 1 (a). The ability of S1 lecturers to develop online learning is influenced by age. Lecturers in S1 courses are older than D4 lecturers. This is because some S1 lecturers are less skilled at using digital technology in online learning. Rasheed explained that lecturers are incompetent in operating technology for teaching due to the lack of literacy skills in online teaching technology in creating, uploading and sharing quality video content to students. Lecturers still have negative beliefs and perceptions of themselves in using teaching technology 17.

Lopez added that lecturers' understanding of their ability to use ICT independently changed after they received training 18. Based on these findings, senior lecturers (S1 lecturers) are still able to develop their abilities if there is time and willingness to practice operating digital technology. The data in Figure 1 (b) shows several learning components that still need to be improved by the S1 lecturers.

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| (a) | (b) |

**Figure 1.** *Average Quality of Online Learning (a), Recapitulation Evaluation of The S1 Lecturers Learning Quality (b)*

The more detailed data in Figure 1 (b) shows the components of the learning material that still need to be improved by the S1 lecturers. The average value of content/material for all S1 courses is the lowest among other components, so it needs to be updated according to the demands of the current development of learning technology. Curriculum development (MW) and learning media (WR) courses need improvement in all learning components. More specifically, it was found that the learning materials and media made by the lecturers were still less interesting in learning. The data in Figure 1 (b) shows several learning components that still need to be improved by S1 lecturers.

Many D4 courses are taught by lecturers who are familiar with digital technology. The data in Figure 2 shows that there is only one course in Kitchen Management (SU) that gets the lowest average score compared to other courses because the lecturers are more skilled in teaching face-to-face than online.

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|  | (b) |

**Figure 2.** *Recapitulation Evaluation of The D4 Lecturers Learning Quality)*

A quality learning process should have consistency between planning and implementation (action). The data shows that some courses have good planning but the implementation is declining so there needs to be an improvement in commitment. In the evaluation component there is feedback from students who have difficulty, they find it difficult to get individual guidance because the lecturers are busy. The results of the study that support this finding are that students who get feedback from lecturers with conventional methods can actually show better performance than feedback from lecturers and friends online 19.

# conclution

Based on the results of the evaluation of the quality of online learning during the COVID-19 pandemic, it can be concluded that all indicators are in the very good category. Indicators of the quality of content, media, planning, processes, and also the evaluation of online learning are in the very good category. Even so, there are still some suggestions that aim to further improve the quality of learning. There are several suggestions to improve the quality of learning, especially for undergraduate lecturers, namely improving the quality of interesting learning content and entertainment so that it does not become boring, learning contains new knowledge that stimulates learning enthusiasm, varied external learning resources and can be accessed from the beginning of the semester so that there is material enrichment, lecturers are expected to have a high commitment to realizing the implementation of learning in accordance with the plans that have been submitted at the beginning of the semester, and lecturers are expected to provide online and face-to-face counseling services and provide information on the learning progress that students have achieved.

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